**OPENING STATEMENT OF**
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**COMMITTEE ON SCIENCE**
**U.S. HOUSE OF REPRESENTATIVES**

Undersea Research and Ocean Exploration
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Good afternoon! I want to welcome everyone to this hearing on undersea research and ocean exploration, and I especially want to thank our witnesses for testifying. We have an excellent panel to help us discuss how best to organize NOAA's marine research efforts. The bill that we will discuss today authorizes two oceans programs at NOAA: The National Undersea Research Program – or NURP – and the Ocean Exploration Program – known as OE. These two programs provide critical tools and information that allow scientists and policy makers to better understand and manage our nation's marine resources.

Unfortunately, not everyone appreciates – yet – just how important the oceans and Great Lakes are to our daily lives. More than 70 percent of the Earth's surface is covered by oceans, seas, and the Great Lakes. Together they are a source of valuable living and non-living resources, are critical corridors for transportation and shipping, and provide some of the most

popular recreation and vacation sites in the country. Large quantities of mineral and fossil fuel wealth exist beneath the surface of the oceans, and novel new compounds with potential practical applications are discovered on a regular basis. We could spend this entire hearing just talking about how important the oceans and Great Lakes are to all of us, but the most amazing fact about these incredible resources – and the reason that we are here today – is how *little* we know about them, and how much we have yet to learn. I know our panel will make this point even more clearly, so I will give just a few brief illustrations of how much we *don't* know:

- NOAA estimates that over 95 percent of the world's oceans and over 99 percent of the ocean floor have yet to be explored.
- Today, maps of Earth's ocean bottoms have a resolution of 7 miles. This means that we can't even see features the size of the National Mall. By comparison the Mars Global Surveyor has photographed the surface of Mars with a resolution as high as 1.6 *feet*. Amazingly, we have even been able to locate the Mars Rover, a device the size of an average office desk.
- Pulley Ridge, a 60-mile-long reef off the coast of Florida, hosts a diverse and thriving ecosystem, but was unknown until less than a decade ago.

Effective management of our marine resources requires a well organized, carefully thought-out science program to both fill in the gaping holes in our knowledge and give our managers and policy makers the tools and information they need to do their jobs. We're here today to talk about two critical pieces of that science program. Ocean Exploration helps us define the scope and scale of marine environments and gives us proper context within which to ask the best scientific and policy questions. NURP gives scientists the specialized technical support they need to fill the gap between basic marine science and the more applied science and information needs of policy makers and resource managers around the country.

There are two issues that I hope we will be able to address clearly today. The first has to do with clarifying the benefits that NURP and OE provide to the country. In the increasingly challenging budget environment, we cannot afford to squander resources on unfocused or poorly guided programs. I hope to learn from our witnesses whether the bill before us provides an appropriate structure for the two programs.

The second issue has to do with the proposed merger of the two programs. We need to be assured that this process has been carefully thought through and includes adequate input from the broader marine science community. Without careful planning and the support of the community, a merger may do more harm than good. We need to decide if the bill provides

appropriate guidance and flexibility to this process so that whatever comes out in the end will, strengthen – not weaken – our nation's marine science efforts.

I again want to thank our witnesses for being here today – I look forward to your testimony and to an informative discussion.

I will now recognize our Ranking Member, Mr. Wu.